THE PROGRESS OF SCIENCE

CURRENT COMMENT

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Science Service

WE WANT WATER

This is the season of the year when we appreciate the fact that our bodily substance is mostly composed of water. Lucky for us that it is, for water is not only the most abundant, but the most even tempered of liquids. It is slowest to cool and, what is of more interest just now, it is slowest to heat. It is this thermal conservation of water, otherwise known as its specific heat, that keeps us going regardless of the weather. For we can only live within the narrow rang of two degrees Fahrenheit, and it requires a delicate adjustment of the mechanism to maintain that temperature as we roam from the equator to the pole, or as the climates of these regions alternately roam over those of us who live in the north intemperate zone.

It is water that keeps all parts of the body at the same temperature in all weathers by circulation, and then in hot weather like this reduces the temperature by evaporation. So as a man on a pleasure excursion has to put a bill into his pocket from time to time to compensate for the sum imperceptibly evaporated in small change, so we require frequent invoices of water to keep up with the increasing retail outgo. The body in summer time is a steam engine, constantly taking advantage of the high rate of exchange between liquid and gas.

For water is twice blessed. It gives a blessing as it comes and as it goes. And the latter is the greater, though we are not so grateful for it. We appreciate the coolness of a glass of ice water, but it does us fifteen times as much good afterward as it escapes through a million pores. A cup of hot tea also may cool us off, for it takes away with it in evaporation from the skin fifty times as much heat as it brought to us.

Water is really what is wanted, although we add various flavors, call it by various names, and charge various prices for it. And it does not matter much what its initial temperature is, it will serve its purpose just the same. The only important thing is to get enough of it at all times, before meals, after meals, between meals and at meals. One can hardly get too much of it, but one usually gets too little.

The regulation of the strength of the various fluids of the body is as nicely adjusted as the equilibrium of temperature. But both are dependent upon an abundant supply of water. An excess can be easily disposed of but a deficiency upsets the machinery. A pound of water a day is about what the body can manufacture in its internal laboratory from the hydrogen of the food and the oxygen of the air, but this is not nearly enough to run it. The automobilist cools down his combustion cylinder by wrapping it with water and keeping this in rapid circulation. We also are propelled by an engine using food as fuel in much the same way and we use the same device to prevent overheating. But we have to evaporate the water to get the full cooling effect and this tends to dry us up, to make mummies of us, to leave us stranded for want of water.

Our thirst is thus the longing of the salt that is left behind for the water that has departed. It is a sort of homesickness, a longing for an ancestral habitat. For Venus Anadyomene is a verified myth. All

life sprang from the sea. And the tide that ebbs and flows through our heart is composed of much the same elements as the ocean from which it was originally dipped.

SHORT NAMES

When a man makes a new invention his work is not done. He should invent a new name for it. Here he is apt to fail for, being more of a mechanic than a philologist, he turns over the job to the Greek professor who manufactures one out of old roots. So it happens that many a handy little pocket tool is handicapped by a name that wraps three times around the tongue. But the people refuse to stand for it.

Consider what a Babel-like botch has been made of the job of naming the new art of photographing action. Rival inventors, rival word-wrights, and rival systems of Greek transliteration precipitated a war of words in which the chief belligerents were animatograph, animatoscope, biograph, bioscope, chronophotography, cinema, cinematograph, cinematoscope, cineograph, cineoscope, electrograph, electroscope, kinema, kinemacolor, kinematograph, kinematoscope, kineograph, kineoscope, kinetescope, motion pictures, moving pictures, photo plays, tachyscope, veriscope, vitagraph, vitascope, zootrope, zoogyrograph, zoogyroscope, and zoopraxiscope.

But the people—they call it "the movies." It is not a great name, but it is better than some at least of those listed above.

If, instead of trying to load the new machine with a name implying that it had been invented in Athens or Rome, its godfathers had given it a respectable convenient name of one or two syllables like "volt," "kodak," or "velox," much of this confusion might have been saved. Think how many millions of dollars, years of time, barrels of ink and cubic miles of hot air would have been saved if "electricity" had been named in one syllable instead of five. We might even now cut it down to "el" except that by popular vote the six syllables of "elevated railroad" have been reduced to that handy term. So, too, the people have found a way to reduce "radiotelephony" to a single mouthful, "radio."

The lesson of it is that if the father of a new invention does not want to have his child called by a nickname let him give it a short and snappy name on the start.

MEDIUMS AND TRICKSTERS

Those who believe in spiritistic phenomena call upon their opponents to disprove their hypothesis, and hold, rightly enough, that if ninety-nine mediums are merely tricksters, it does not prove that the hundredth is not genuine. It is, of course, impossible to prove the universal negative of such a proposition. It is merely a question of probabilities. We can merely say that if spirits do return, it is extremely unfortunate that they can only return under those conditions which are most favorable for deception.

What these conditions are we can learn from the practices of amateur and professional conjurers. Let us approach the matter from another starting point than is usually adopted. Instead of speculating as to how departed spirits would manifest themselves to us, a matter which we can know nothing about, let us consider what a trickster would do if he wished to deceive the public into thinking that he was possessed of spirit power, a matter on which we have unfortunately a great deal of information. What conditions would he impose? What methods would he use? The following are the chief characteristics of such fraudulent manifestations:

(1). Darkness. The less the light